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CONTENTS.

DADA HARI'S WELL, MOSQUE, AND TOMB, AHMEDABAD.
BY MR. JOHN GRIFFITHS.

(3 double and 11 single page Plates).

Details of Caps and Columns in Musjid.
Details of Stone Balcony.
Details from Musjid. Details of Mihrab.
Elevation, Section, and Plan of Musjid.
Side Elevation and Section.
Sections and Plan of Well.
Details of Well.
Elevation, Section and Plan of Chowk.
Details of Carved Panel in Chowk.
Details of Well and Parapet of ditto.

POTTERY AND GLASSWARE OF BENGAL.
BY MR. T. N. MUKHARJI.

RAM SINGH. DEL. MAYO SCHOOL OF ART LAHORE

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1550–1895.

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DADA HARI'S WELL, MOSQUE AND TOMB, AHMEDABAD.

Only those who have lived in the tropics know what a blessing and a boon water is. It is, therefore, not surprising to find in India that wells and tanks should, from time immemorial, be treated with veneration; and one of the greatest benefactions that could be bestowed on a community was the making of a well or tank; and all the thought and skill that human ingenuity could devise was bestowed on their construction, so that they became objects of art. In the city of Bombay are to be seen innumerable tanks and wells, the result of these benefactions, and many of them bear tablets on which are engraved the names of the donors. A donor of one of the wells on the Esplanade, between the Elphinstone High School and the School of Art, preferred that his name should not be known, as the inscription reads: "The charitable gift of a respectable native, 1822."

The scene round a well in the early morning or evening is one of the most picturesque sights to be seen in India. The well is usually sheltered by a "tope" of sacred pipal or banyan trees, round which crowd men, women, and children; the women always attractive in their simple garments, falling in graceful folds and brilliant in colour, followed, or clung to, by little nude children, who are wonderfully picturesque with their black shining eyes and softly moulded lithe figures. Nearly all carry pots of sorts—the rich have vessels of copper and brass, the poor of earthenware—of every shape and size; all beautiful, none ugly. Some are engaged in cleaning their metal vessels with the dust scraped from the roadside; others are vigorously plying their ropes in drawing water from the well; others are coming and going with a swinging gait, with their pots piled one above the other on their heads; while cattle and goats are quenching their thirst from the stone troughs attached to the well for their special use. One man sits lazily on a rope, to which is attached a large water skin (*mussak*), driving a pair of white humped bullocks, often 17 hands high, who slowly draw water that irrigates the surrounding fields. The friction of the rough wooden appliance as it turns on its axis over which the rope attached to the *mussak* passes, makes a low, penetrating, sing-song sound, which may be heard for a long distance, and it is one of those strange weird, familiar, Indian sounds which cannot be heard without recalling a host of associations and a bright picture of the animated scene round a tree-shaded well. Pigeons and doves are billing and cooing, and the fussy erratic little striped squirrel is fidgetting about, uttering its sharp whistling cry; while the green parrot flits by with lightning rapidity, and the pea-fowl—the males displaying their gorgeous plumage—are feeding close by; all these varied incidents form a pastoral scene which once witnessed can never be forgotten.

Wells for supplying drinking water both for man and beast, and wells for irrigating purposes are to be seen all over the country; many of them, especially those in Gujárat and Kathiawar, being of great architectural beauty. One of these, Dáda Hari's at Ahmedabad, with its adjoining mosque and tomb, forms the principal subject of the illustrations in the present number.

"At the village of Asárva, about a mile east of Hatising's temple, are two wells, Dáda Hari's and Máta Bhavani's. Dáda Hari's well, also known as Nurse, or Dhái, Hari's well, was built in 1485 by a lady of the household of Mahmud Begada, at, it is said, a cost of £30,000 (Rs300,000). At the level of the ground it is 196 feet long by 40 feet wide. At the east end, from a domed canopy, a descent of eight steps leads to a covered gallery. A second flight of nine steps leads to another gallery, and a third of eight steps to the lowest gallery two or three feet above the level of the water. At each landing a corridor runs along the sides and leads to other galleries that cross the well at intervals. At the west end is the well, octagonal in shape, its walls richly carved, with, on each side, small cupolas, and under them spiral stairs leading down to the water. Behind the main well is a second well twenty feet in diameter, used for watering land. The whole is far more elaborate than the Máta Bhaváni well close by, and has no equal in Gujarát, except the well at Adálaj built about the same time by a Hindu lady Rudbái, wife of Rájá Virsing. According to another story, the Adálaj well was built by the sister of Bái Hari. Mr. Briggs translates the inscription as if the builder was a man, not a woman, and Captain Lyon

says, 'whether man or woman is doubtful.' Close by the well the nurse built a mosque and a tomb in which she was buried. The well bears two inscriptions, one in Sanskrit on the south, and one in Arabic on the north wall of the first gallery. The Arabic writing runs:—'This holy and wholesome water; the splendid travellers' rest house enclosed on four sides by carved and painted walls, and a grove of fruit trees with their fruit, a well, and a pool of water for the use of man and beast, were built in the reign of the Sultan of the Sultans of the age, established by the grace of God and of the faith, Abul Fath Mahmud Sháh, son of Muhammad Sháh, son of Ahmad Sháh, son of Muhammad Sháh, son of Muzaffar Sháh the Sultan, may God keep his kingdom. Dated the metropolis of the kingdom of the 2nd of Jamádi-ul-awal in the 26th year of the reign.' This gives 1485 A.D. The Sanskrit inscription, according to one account, gives 1500 (1556 S.) as the date of the well.[1] According to another, it gives 1421.[2] Mr. Forbes (*Oriental Memoirs*, 1781) gives the following account of the well:—'About a mile from Shahi Bág is a large well or rather a noble reservoir, constructed by a nurse to one of the kings of Gujarát, and still called the "Nurse's Well." A grand flight of steps leads to the water through double rows of pillars and pilasters elegantly furnished far below the surface of the earth. This reservoir is all of hewn stone surrounded by galleries, ascended by circular steps, and a dome supported by large columns over each; these galleries communicate with the principal stairs and add to the general magnificence. Upwards of thirty thousand pounds were spent on this magnificent work, which some attribute to the nurse and others to a rich dancing girl, who erected it with the produce of one of her ankle jewels; the other she is reported to have thrown into the water to reward the search of the diver.'"[3]

JOHN GRIFFITHS.

NOTE.—The illustrations of Dáda Hari's well are executed by students of the Sir Jamsetji Jijibhai School of Art, Bombay, from sketches and measurements taken on the spot, and are a continuation of those given in No. 46 of this Journal.—J.G.

LIST OF ILLUSTRATIONS.

DADA HARI'S MUSJID, AHMEDABAD. 70.—Details of Caps and Columns. 71.—Details of Stone Balcony. 72.—Details (various). 73.—Details of Mihrab. 74.—Elevation, Section and Plan. 75.—Side Elevation and Section. 76.—Sections and Plan. DADA HARI'S WELL. 77.—Sections. 78.—Details of Chowk. 79, 80.—Details of Carved Panel in Chowk. 81.—Details over Carved Panels in Chowk. 82.—Details. 83.—Details of Parapet.

[1] Briggs' *Cities of Gujaráshtra*, p. 218. [2] Captain Lyon, p. 14. [3] Mr. J. M. Campbell's *Bombay Gazetteer*, Ahmedabad, pp. 282–283.

POTTERY AND GLASSWARE OF BENGAL.

By Mr. TRAILOKYA NATH MUKHARJI, F.L.S., Indian Museum, Calcutta.

I.—POTTERY.

The First Pot of the World.—The want of a pot was felt almost from the very beginning of things,—since there was a keeper and since there was anything to keep. The necessity for such a thing was felt even in the very nebulous stage of the world, when the gods and demons combined to churn the ocean for its wealth. That fierce churning yielded many precious things, among which was the nectar to make the gods immortal for all time. Something was now needed to hold the nectar. Viswakarmá, the celestial artificer, pondered and took out from each of the assembled gods a bit of the *Kalá* or spirit with which their bodies are made, and moulded it into a pot, perhaps the first of its kind in the world. From *Kalá* came the Sanskrit word *Kalasa* or water-pot.

Creation of Potters.—But the manufacture of a single pot from a handful of spirit subscribed by the gods was by no means calculated to satisfy the needs of the world. The demand was universal, and what was required was a regular, organised caste with the exclusive privilege of making pots. Siva, ever thoughtful for the happiness of the world, at length removed this long-felt want. It so chanced that on the occasion of his marriage with Sati, the manifested Primordial Energy, no pot could be had for the requisite ceremonies. The moment was critical, and there could be no delay. So the bridegroom god took out a bead from his necklace, and out of it created a man and out of another he created a woman, and bade them forthwith to prepare a *Kumbha* or water-pot. This was the origin of our Kumbhakár or potter caste, abbreviated into Kumar in Bengal, and Kumhar in Upper India. The Kumars to this day are not wanting in gratitude to the creator of their progenitors. They call themselves Rudrapál, which was the name given to the first potter, consider themselves the *protegé* of Rudra or Siva, place his image on the middle of their wheel, leave it unturned for the whole of the first month of the Bengali year, and finally on the last day they worship the idol and throw it into the water. Nor are they unmindful of the originator of their craft, the god Viswakarmá, who made the first pot of the world to keep the nectar in. Him they worship on the day the sun enters the sign of Capricorn, his symbol being the implements of the craft, before which they present sweets, fruits and other delicacies. Rudrapal himself is also worshipped by the potters of Orissa. They place his image between those of Radhá and Krishna, and on the sixth day of the new moon in the month of November, fried paddy, plantains, cocoanuts and other offerings are presented to him. Various other accounts are given in the sacred books about the origin of the potter caste, but that related here is the one best calculated to raise this class of artisans in the estimation of the world.

The Potter's Wheel.—At any rate, the manufacture of earthenware was practised in India from a time quite beyond the memory of man. The facility with which clay can be kneaded into dough, turned into any shape and hardened by baking, could never escape the notice of even the most unobserving of primitive men. Nor was the work of making pots beyond the intelligence of the rudest savage. But to do it with the aid of a horizontally revolving wheel was decidedly a great advance in the art. In a comparatively modern age the Greeks might claim for Corœbus of Athens, Hyberbius of Corinth, or Talamus, the nephew of Dædalos, the honour of inventing the potter's wheel, but nevertheless long before that period it went on revolving in the humble cottage of the Indian artisan, even at so remote a time when the nomadic Aryans tended their flocks, and sitting around their camp-fires drank the *soma* and sang the sacred hymns of the earliest Vedas. Nor was its use unknown among the other ancient nations of the East. "Then I went down to the potter's house and he wrought a work on the wheels," so sang Jeremiah, the Hebrew prophet.

Want of Material.—But, though the manufacture of household earthenware was practised from the most remote antiquity, in Bengal at least the industry never attained to the position of a sumptuary art. The early Aryan hamlets that step by step descended down the sacred waters of the Ganges and clustered on the fertile plains of Bengal, found no hint or encouragement in the alluvial soil to develope the manufacture of ware like the hard porcelain of King-te-chin in China, or the translucent vases of Imali in Japan. Materials like the Kaolin of China or the Keramos-substance of Greece might lie further west, among the freebooting savages whom, in a later age, Cleveland won over by love, or in the then unexplored and inaccessible hills and jungles where the wild men struggled with the wild beasts for dominion over the land, but they hardly ever came within the reach of the ingenious Aryan hand.

Caste-rules in the way.—Caste-rules again have stood in the way of the development of Bengal pottery into an ornamental art. The abundance of the raw material and the ease with which it can be manipulated into

vessels, have rendered earthenware of so little value that even the poorest can afford to throw the old ones away from time to time and to replace them with new. Indeed, of so little value is the potter's stock-in-trade, that there is a proverb about him in Behar: *Nichint sute kumhra, matiya naele jay chor*—"The potter sleeps secure, for none will steal his clay." So earthenware has come to be looked upon as things peculiarly susceptible of defilement. All the cooking-pots in use must be thrown away on a death occurring in the house or of a near relative. The same rule is also observed on the occasion of an eclipse, be it of the sun or the moon. As plates or dishes for eating cooked food, or cups for drinking water, they cannot be used more than once, and so they are seldom made or employed for such a purpose, except by the Muhammadans, who have no such prejudices. To lavish ornamentation on so temporary and insecure an article would be but waste of time and labour, and, indeed, with very few exceptions, no ornamentation whatever is attempted. Thus the art of pot-making in Bengal never got beyond the coarse redware of the ancient Egyptians, or at best the smooth blackware of the Etruscans.

Glazing not known.—As to glazing, it is all but unknown to the potters of Bengal. Even the use of oxide of copper, which gave the beautiful blue tints to the ancient Egyptian porcelain, exported to decorate the graves of Greece and the sepulchres of Etruria; or of common salt, which glazed the celebrated Bellarmine bottles of Holland, has never been attempted by the potters of Bengal. Glazing would perhaps be impracticable with the ordinary potter's clay found in the country, owing to its unrefactory character from the presence in it of a large proportion of oxide of iron and carbonate of lime, and more often for the admixture with it of large quantities of organic matter. Where good clay is likely to be found, no alchemist Bottcher has yet appeared to wring the secrets of nature, no Madame Darnot to make a discovery, and no Wedgwood by untiring zeal and unabating patience to revolutionise the household industry of a country.

The Sewan Pottery.—Almost the only pottery in Bengal, which can affect the least pretension to artistic merit, is that made in Sewan, in the District of Sáran. But even this is an inferior imitation of that made in Azamgarh, in the North-Western Provinces. Sir George Birdwood speaks of this pottery as "generally feeble and ricketty in form, and insipid and meretricious in decoration, defects to which its fine black colour gives the greater prominence." The Sewan pottery has, however, some reputation outside the place of manufacture; but the demand for it is so small that it does not give employment to more than four families of potters. The ware is either white, red, or black, the last being the most admired. The vessels to be made black are baked within earthen jars to prevent their coming in contact with the flames. Sewan blackware resembles in some respects the Roman black pottery of later times, the colour of which was produced by confining the smoke in the furnace, and throwing it down upon the heated vessels. They are partially glazed with a mixture consisting of a kind of clay found in the district, Fuller's earth, and mango bark. The mixture is first dried in the sun, then powdered, and lastly dissolved in water before being applied. Black colour is produced in other places by burning a quantity of oil-cake in the kiln along with the earthenware. The Sewan red and blackwares are either left plain or have silvery floral or geometrical patterns. The decoration is produced by etching the patterns on the surface and rubbing into them an amalgam of mercury and tin. Powdered mica is also used to produce similar patterns. The articles usually made are suráhis or water-goblets, farsi or smoking bowls, chhilam or tobacco-pipes, and abkhorá or drinking vessels. The art has also been adapted to meet the requirements of European customers, for whom flower-vases, plates, cups and saucers, milk jugs, butter-pots, spittoons, and other articles are made. The patterns for the decoration of these are mostly copied from designs supplied by the European customers themselves. The shape of some of the flower-vases of Sewan resemble those of Greece in style and form.

Khulna Pottery.—A black pottery without any kind of ornamentation is made at Khanja, a village in the District of Khulna. The articles made here justly deserve praise for their high polish and elegant shapes, fully illustrating the meaning of Sir George Birdwood's remarks that "nothing can be worse in taste, nor, in an æsthetic sense, more wasteful, than to hide a lovely form under an excess of foreign ornament." The articles usually made are betel-holders, oil-pots, smoking bowls, &c. The betel-holders of Khanja somewhat resembles in style the vase of Henry II. ware.

Dinajpur Pottery.—Water-pots, betel-boxes, oil-pots, smoking bowls, ink-pots, incense-burners, and other articles are made at Dinajpur with some degree of finish, so as to raise them to a certain extent to the position of ornamental art. The shapes are also good.

Poverty of Bengal in Fancy Pottery.—But the poverty of Bengal in the matter of art pottery is best illustrated by the contributions made to the different exhibitions held within the last few years. The late Mr. H. H. Locke, Principal of the School of Art, Calcutta, and himself an artist of considerable merit, in collecting articles for the Melbourne Exhibition of 1880, considered the Sewan pottery as the only one in the Province worth sending to a foreign country. At the Calcutta Exhibition of Indian Art Manufactures, 1882, which

specially concerned the Province, only 91 specimens were received to represent the industry in Bengal, Behar and Orissa. Of these 34 were from Sewan, 30 from Khanja, 12 from Gaya, 5 from Kantalia, in the District of Murshidabad, 5 from Barisal, 2 from Kodalia, in the District of 24-Parganas, 2 from Manjha, in the District of Saran, and 1 from Balasore. Even many of these can only be classed as works of art more from compliment than from actual merit. In the Calcutta International Exhibition of 1883–84, the industry of the Province was represented by 2 goblets, 2 cups and 3 smoking-pipes from Tipperah, 55 specimens from Sewan, a tea-pot and a butter-pot from Sitamarhi, 10 pieces of earthenware from Murshidabad, one rupee worth of pots and plates from Chittagong, 3½ annas worth of smoking-pipes from Patna, 10 pieces from Muzaffarpur, and Rs2 worth of cups, dishes, and pots from Satkhira in the District of Khulna. The collection sent to the Colonial and Indian Exhibition of London, 1886, was equally poor, consisting of a few pieces from Sewan, Khanja, Dinajpur, Murshidabad, Patna, and the 24-Parganas. In the Economic and Art Section of the Indian Museum, only eight places are represented, viz., Sewan 88 specimens, Khanja 13, Birbhum 57, Dinajpur 5, Gaya 11, Tipperah 3, Chittagong 3, Hooghly 4, and Muzaffarpur 2.

Birbhum Pottery.—The unglazed terra-cotta ware of Birbhum deserves mention. The articles mostly made are suráhis or water-goblets, drinking cups, spittoons, plates, smoking bowls, and lamps. The shapes are good, and a rude attempt is sometimes made towards ornamentation. This consists in tracing on the soft unbaked vessel floral and other patterns with a sharp tool. and afterwards filling the narrow incisions with some white substance. Birbhum also makes a kind of blackware, but not so good as those of Sewan or Khanja. Some of the black flower vases of Birbhum resemble in shape those of Tyg of Staffordshire ware.

Nawada Pottery.—Fancy pottery is also made in Nawada in the Gaya district, but the articles are of very poor quality.

Hooghly Pottery.—The pottery of Hooghly deserves notice, as it presents the only examples of Bengal *faience* in the museum collection. The specimens consist of two flower-tubs and two water-goblets. The body of the ware is the usual red clay, coated over with a semi-vitrified green glaze. This seems to be an attempt to introduce the manufacture of glazed pottery in the country, but the industry does not appear to have made much of an advance.

Raniganj Pottery.—The manufacture of glazed ware according to modern methods has been successfully introduced into the country by Messrs. Burn & Co. in their pottery works at Raniganj. Besides bricks, tiles and drainage pipes, large quantities of terra-cotta ornamental ware are also turned out from these pottery works, but they can hardly be included in an account of indigenous Indian art.

Mode of Manufacture.—The potters of Bengal generally use two kinds of clay: the black earth or the sandy alluvial earth brought down as a silt by the rivers. The best pottery is made in the Burdwan District on the banks of the river Bhagirathi, where the clay is specially suited for the manufacture of durable earthen vessels. In Dacca red laterite earth is imported from Bhowál for the manufacture of ordinary red vessels, the colour of the rim being deepened by coating it with a mixture of catechu and Fuller's earth. In Eastern Bengal the earthenware made at Ráibázár in Dacca has a great reputation for its durability. In the cold weather, boats laden with cocoanuts come from Noakhali, Sandip, and other places, returning with earthenware made at Ráibázár. Bijaypur in Tipperah is also famous for its pottery. The appliances used by the potter are extremely primitive. Beneath the same thatched roof are his kiln, storehouse, and dining and sleeping rooms. He prepares his clay at his door, which is simply done by mixing it with water and throwing away all objectionable articles found in it. Flat vessels that are not turned out of the wheel are fashioned by beating with a small wooden mallet, the clay being spread upon a vessel of the same kind to serve as a mould. The wheel is the Roman rota, a disc of clay weighted along the rim, revolving on a pivot made usually of tamarind wood. The necks and shoulders of all round vessels are fashioned on the wheel, the body being made by hand, often by women. The potters have very great reverence for their wheel. Whatever their occupation be, they consider it as the symbol of their caste. In Orissa, where some of the potters have turned agriculturists, they brand their cattle with a rude representation of the wheel. The whole caste in Orissa abstain from eating *sal* fish, and even worship it, because the rings on its scales resemble the wheel, The kiln is called *pan*, and is divided into two compartments, in which the vessels to be baked are carefully arranged, loose earth being heaped on the top, and the whole coated with a thick layer of clay. It is lighted generally in the evening, the potter sitting the whole night, feeding the fire by a little hole kept open on one side for the purpose. The fuel used is plantain leaves, grass, reeds, and other light articles. A section of the potter caste, known as the Rajmahalia Kumars, thatch their drying-houses with green grass, not tying it, but keeping it down by weights. In course of time when the grass dries, they use it as a fuel for the kiln. This section of the caste make cooking pots for vegetables, milk-pans, and salvers on which sweets

and other delicacies are handed round at wedding feasts. They are prohibited to make idols or platters used at religious ceremonials. Although the potters do not turn their wheel for the whole of the first month of the Bengali year, they are permitted to dig and store clay. Some potters also consider it not unlawful to bake the pottery in that month.

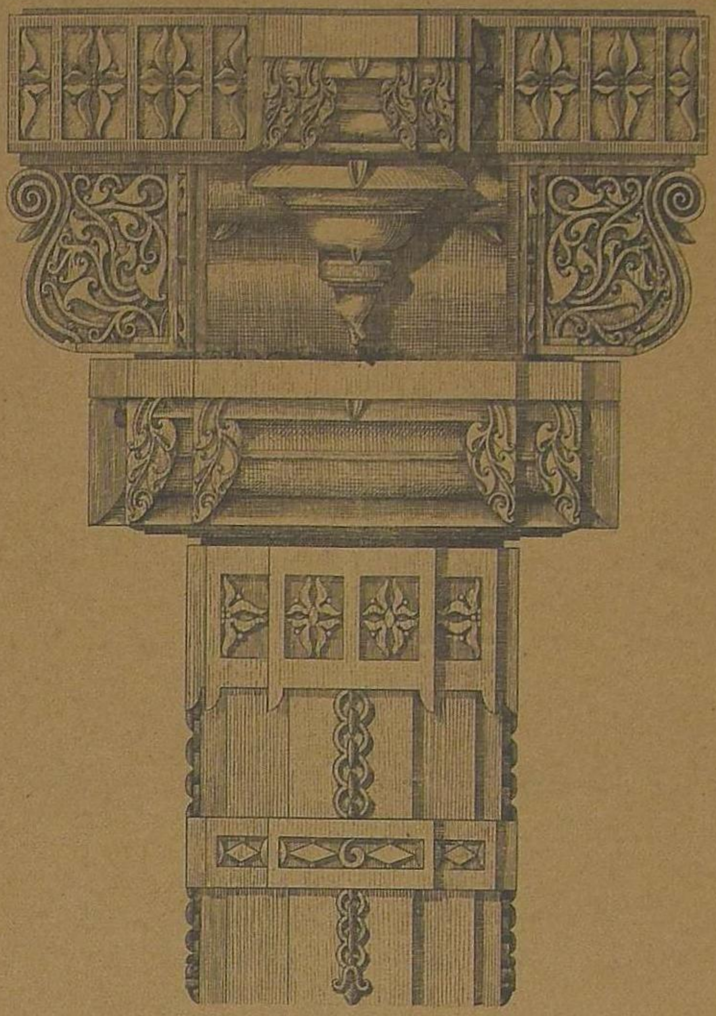
Glazing.—As stated before, the potters of Bengal do not know how to glaze their ware or to fix the colours upon the vessels. At Monghyr they sometimes put a coating of fine clay upon the vessels, but no attempt is made to fuse it to the point of vitrification. Fine black clay, mixed with river sand containing mica grains, is also similarly used. They also impart a whitish colour to some of their ware by washing it with a kind of porcelain clay before baking. In Burdwan, a clay called *Belutti* is used as a glaze without fusion.

Painted Ware.—Some of the fancy pottery of Bengal is hand-painted with colours after they have been baked. The work is done by potters as well as by the women of the Patuás—a half Hindu half Muhammadan caste,—whose business is to make toys and idols and to paint pictures. Red colour is produced from red lead, yellow from arsenic, green by mixing yellow arsenic and indigo, and black with lamp-black, charred rice or reeds. The colours before application are mixed with a mucilage obtained from the kernel of tamarind seeds or the gum adhering to the seeds of the *Bel* fruit (*Aegle Marmelos*). After being painted, the pots are varnished with the *Garjan* (*Dipterocarpus*) wood oil, or with the white of ducks' eggs. Images of deities made by the potters are further improved by powdered mica being sprinkled over them while the paint is still wet. The painting on earthenware, as done in Bengal Proper, is, however, so roughly executed as scarcely to deserve to be called a work of art. The pots of Gaya are, however, painted with some artistic skill. The ground is generally red, upon which yellow and green floral patterns are drawn, interspersed with figures of birds and other animals. These pots are mostly used by tobacco sellers to decorate their shops, as well as to store materials with which the tobacco paste, called *Guráku*, is perfumed.

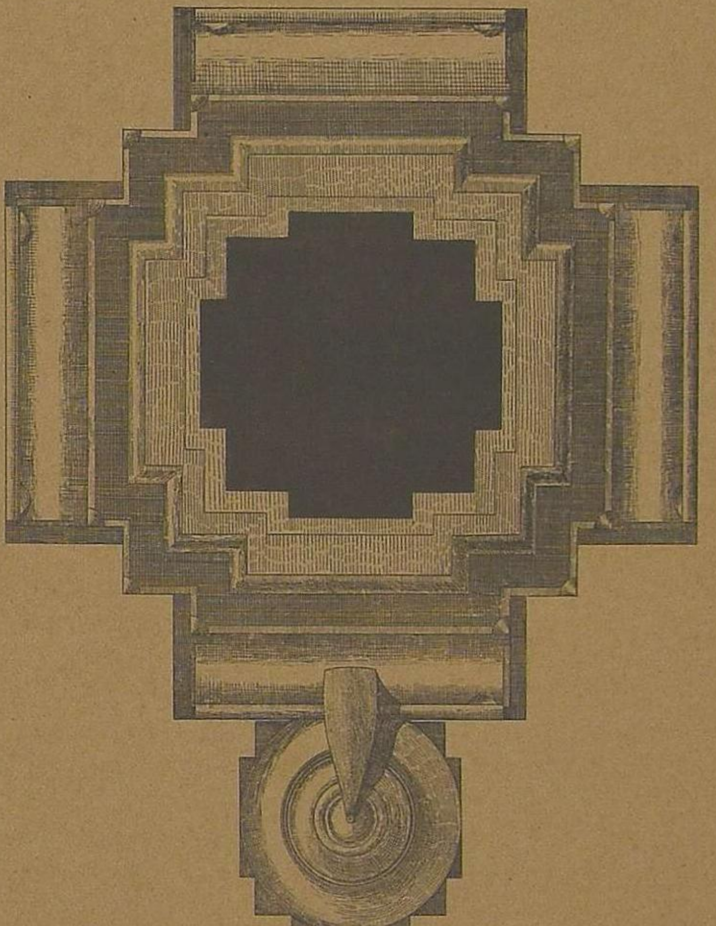
II.—GLASSWARE.

Glassware.—Of glassware in Bengal there is very little to speak. Thin flimsy bottles to keep perfumery, kerosine lamps, ink-bottles, and bangles are made in Calcutta, Patna, and other places. The material used is old broken imported glass, which is melted down and blown into new shapes. Pure white glass is not made in Bengal, except at the factory of the Pioneer Glass Co. of Titagarh, near Barrackpur, where medicinal bottles and other articles are manufactured with European appliances under European supervision. A green and opaque glass is made in Behar out of Son river sand mixed with carbonate of soda. This is used in the manufacture of glass bangles. At Bhagalpur, a coarse glass for the manufacture of bangles and bracelets is made of *Khari* or impure carbonate of soda. This is first melted, then thrown into cold water, powdered, again melted, formed into cakes, and finally melted into rings. The result is a black glass. Green glass is produced by adding peroxide of copper, prepared by putting salt and turmeric into a moistened copper plate. Blue glass is produced by adding an oxide of tin.

Patna Glassware.—The only glassware in Bengal which possesses some pretension to art is that made in Patna. The articles made are suráhis or water-goblets, bottles, lotas, flower-vases, baskets, jugs, ábkhoras or drinking vessels, cups, saucers, pots, &c. The material used is old broken glass. The articles are sometimes coloured yellow or blue, and adorned with golden patterns. Coloured glass is produced by the addition of indigo blue, sulphate of copper, or other ingredients. The shapes of the Patna glassware are extremely elegant, but the industry is on the point of extinction for want of demand. Only two or three families are engaged in it, but they make no fancy glassware without order.



ELEVATION



SIR J. J. SCHOOL OF ART,
BOMBAY, 1893.

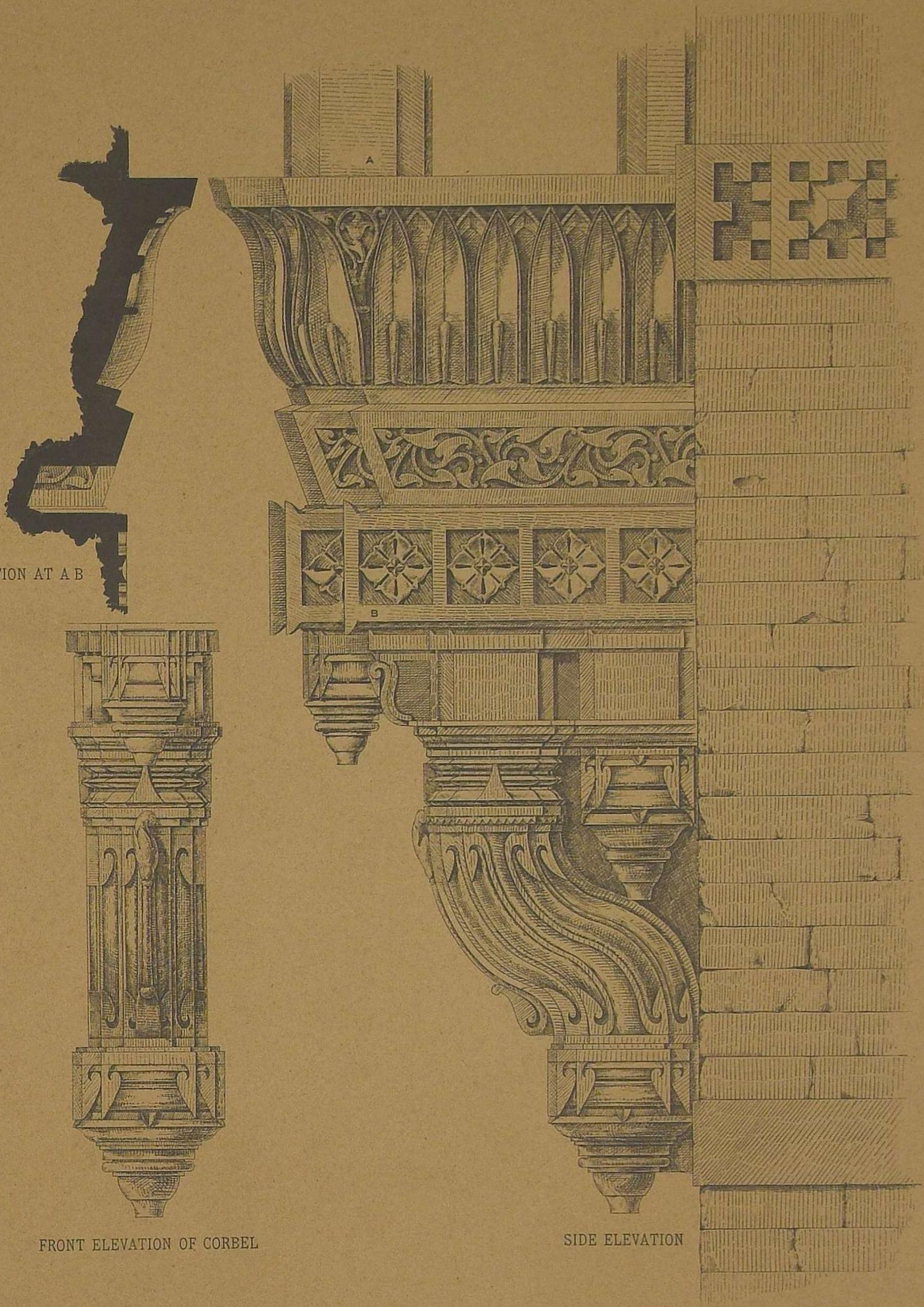
MEASURED AND DRAWN BY
CHHOTALAL DOLATHAM SHAH.

PLAN LOOKING UP

70.

DETAILS OF CAPS AND COLUMNS, DADA HARI'S MUSJID, AHMEDABAD.

ONE-SIXTH FULL SIZE.



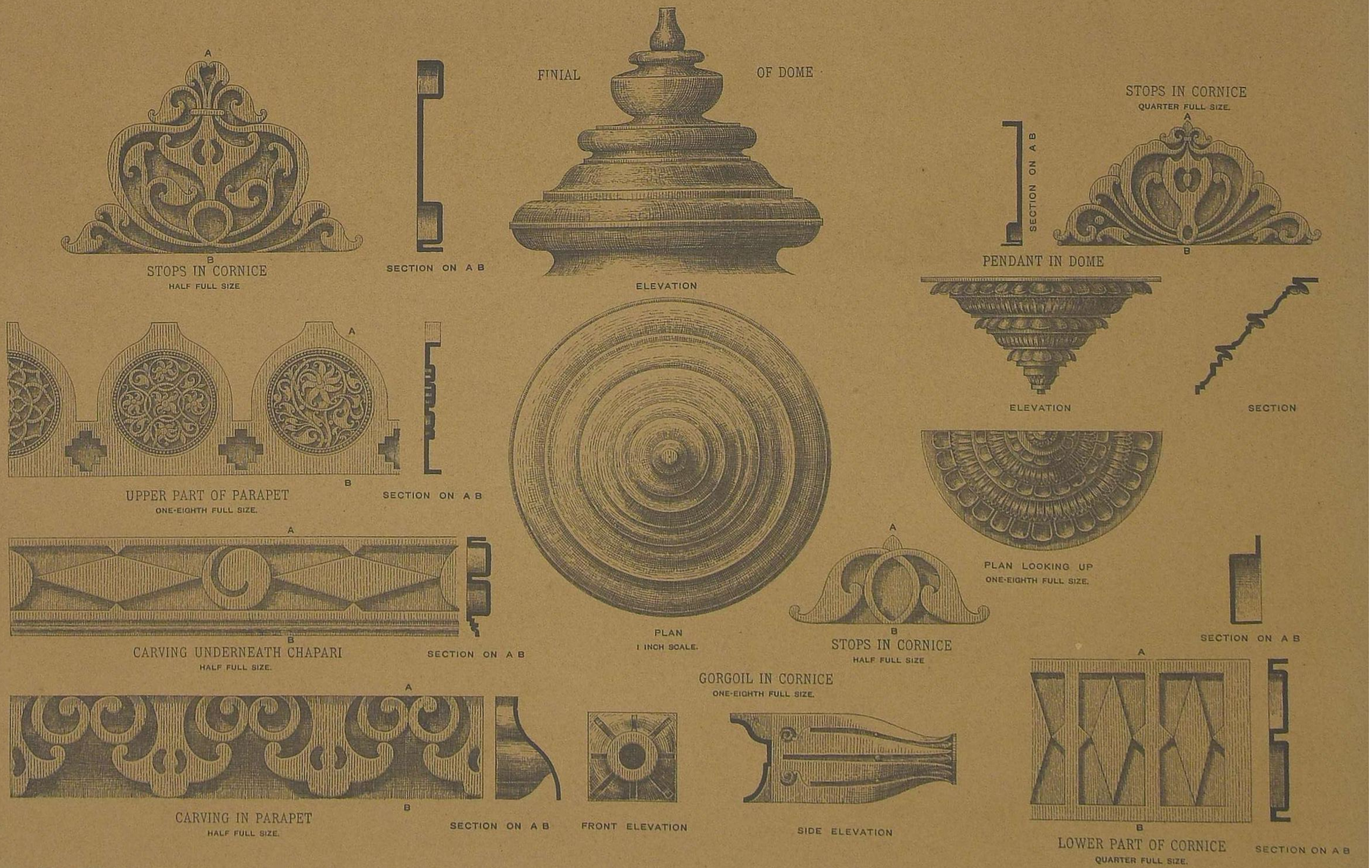
SIR J. J. SCHOOL OF ART,
BOMBAY, 1893.

MEASURED AND DRAWN BY
S. J. FONSECA.

71.

DETAILS OF STONE BALCONY, DADA HARI'S MUSJID, AHMEDABAD.

ONE-SIXTH FULL SIZE.

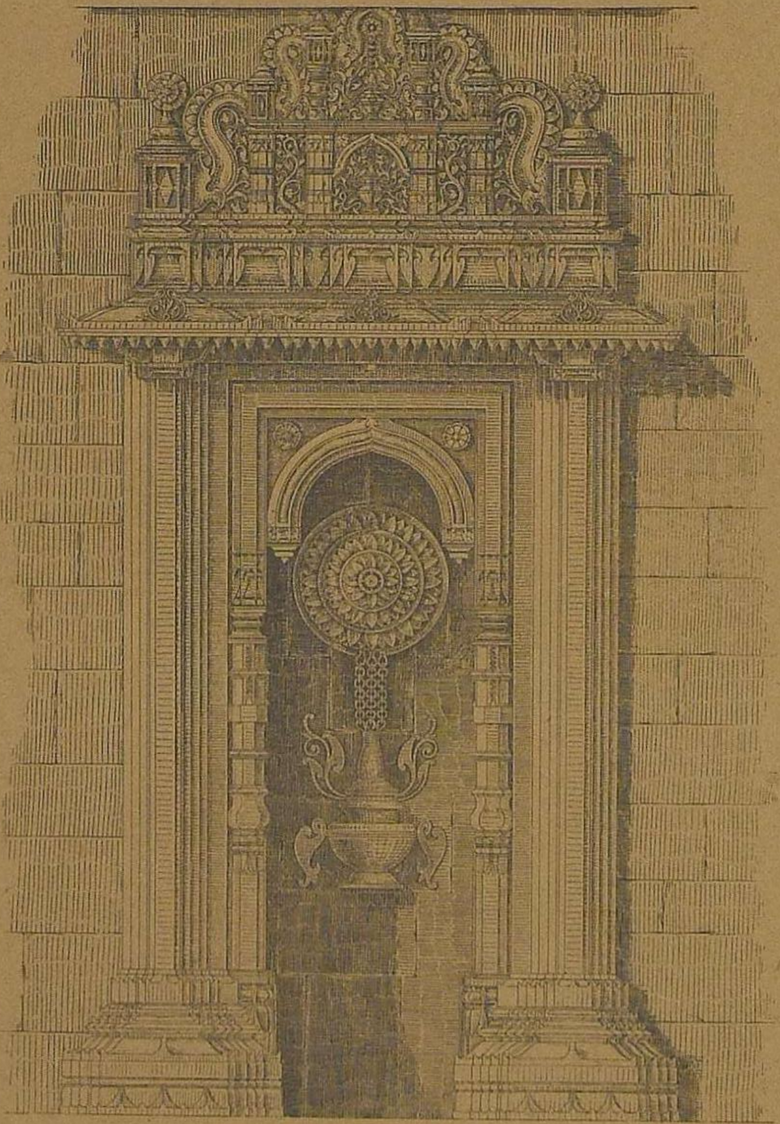


SIR J. J. SCHOOL OF ART,
BOMBAY, 1893.

72.

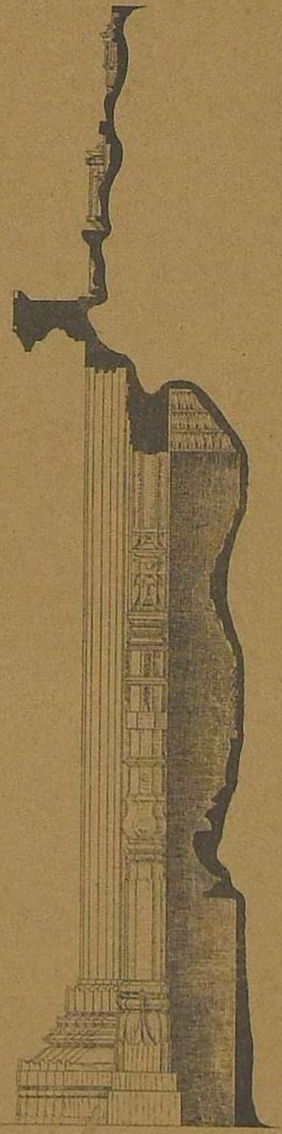
DETAILS FROM DADA HARI'S MUSJID, AHMEDABAD.

DRAWN BY
M. V. DHURANDHAR.



ELEVATION

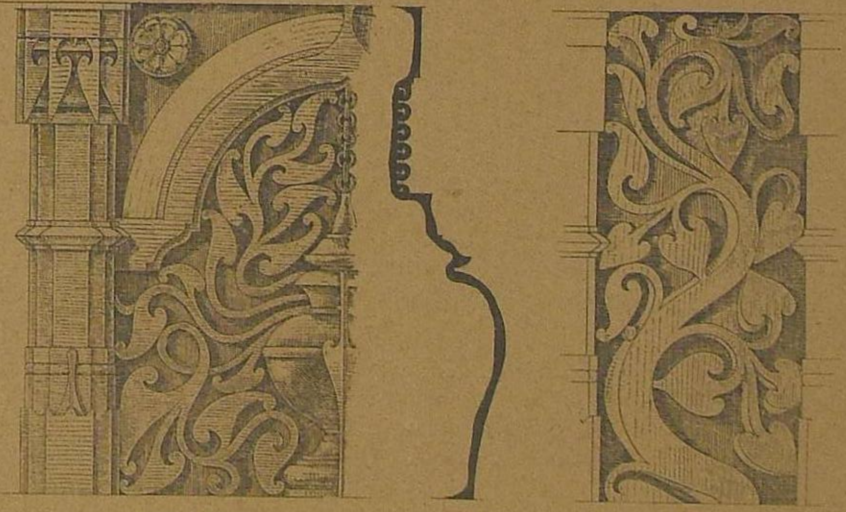
PLAN



SECTION

DETAILS FROM UPPER PART OF THE MIHRAB.

ONE-THIRD FULL SIZE.



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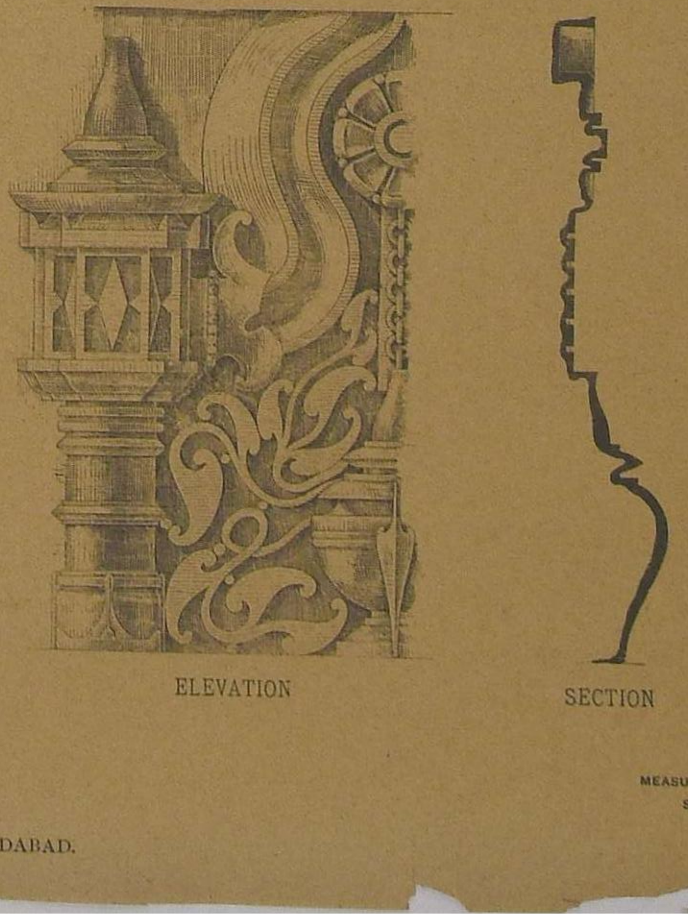
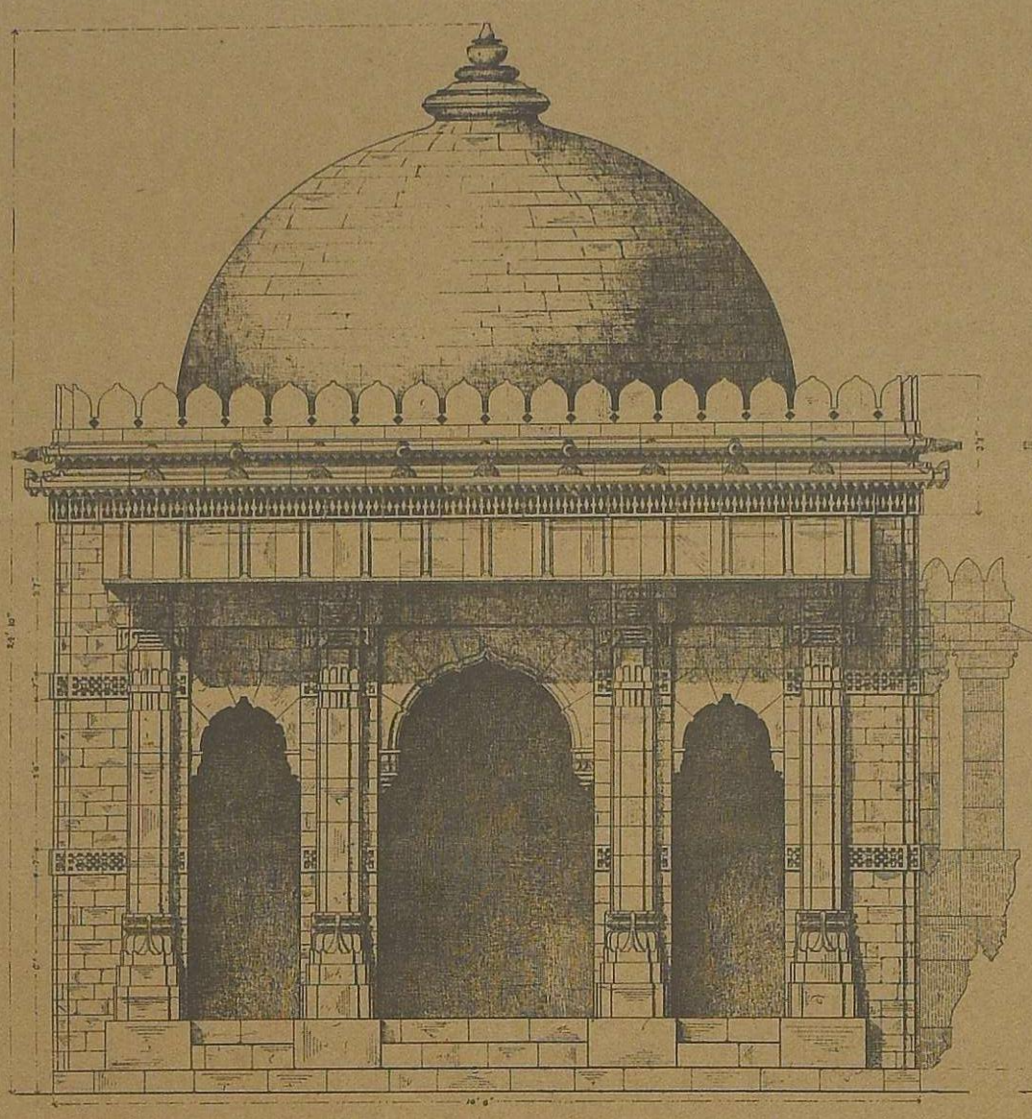


ELEVATION SECTION

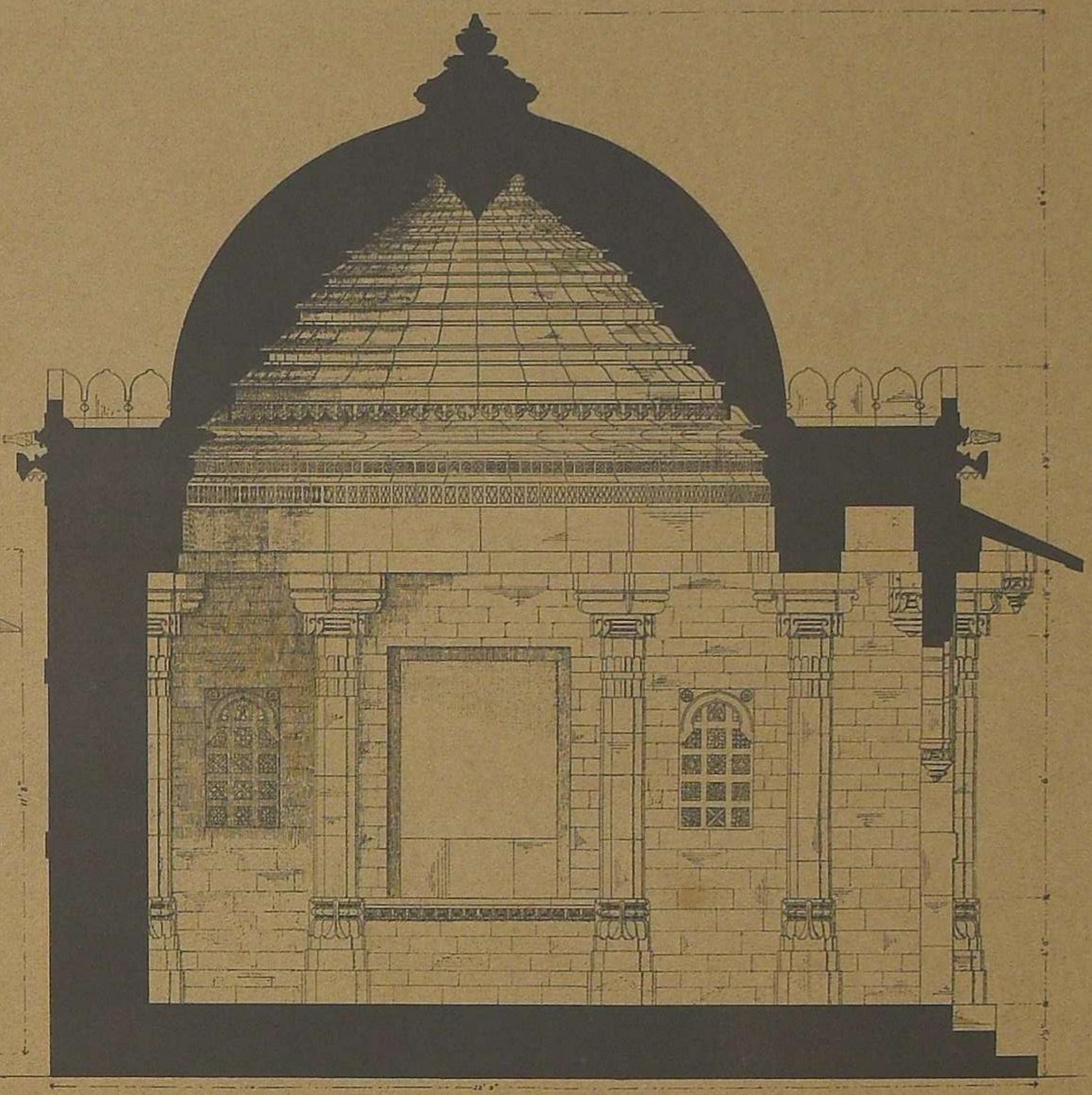
SIR J. J. SCHOOL OF ART,
BOMBAY, 1893.

MEASURED AND DRAWN BY
S. J. FONSECA.

DETAILS OF MIHRAB, DADA HARI'S MUSJID, AHMEDABAD.



FRONT ELEVATION



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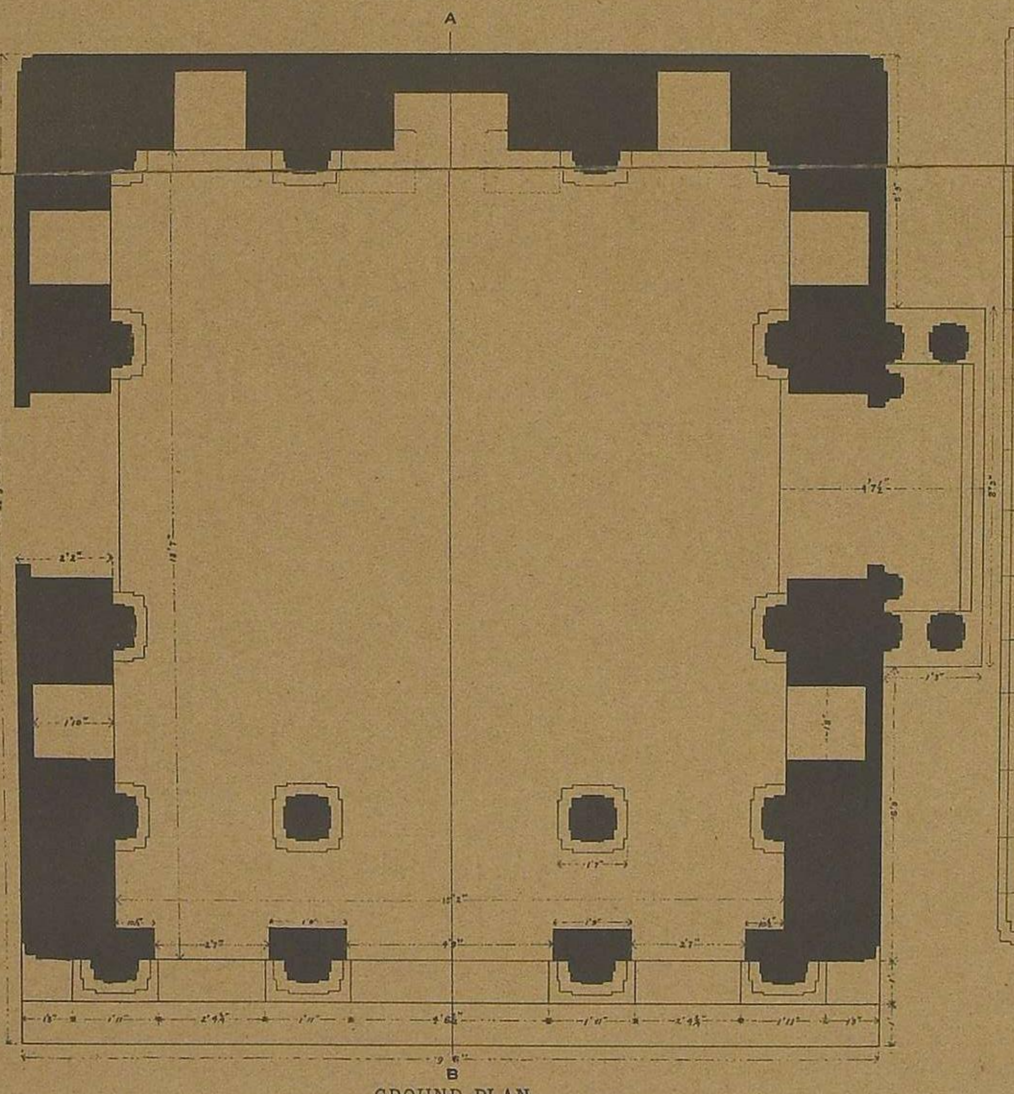
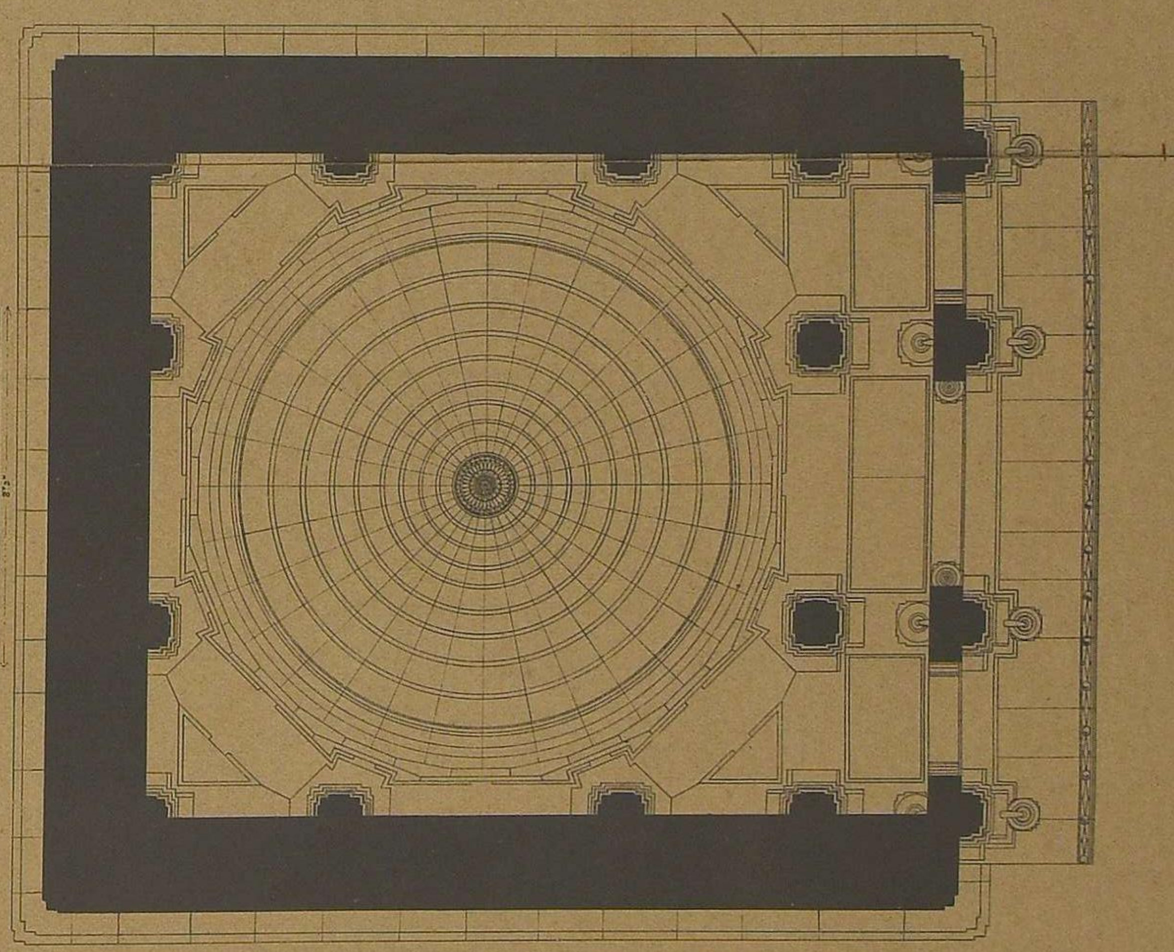


GROUND PLAN



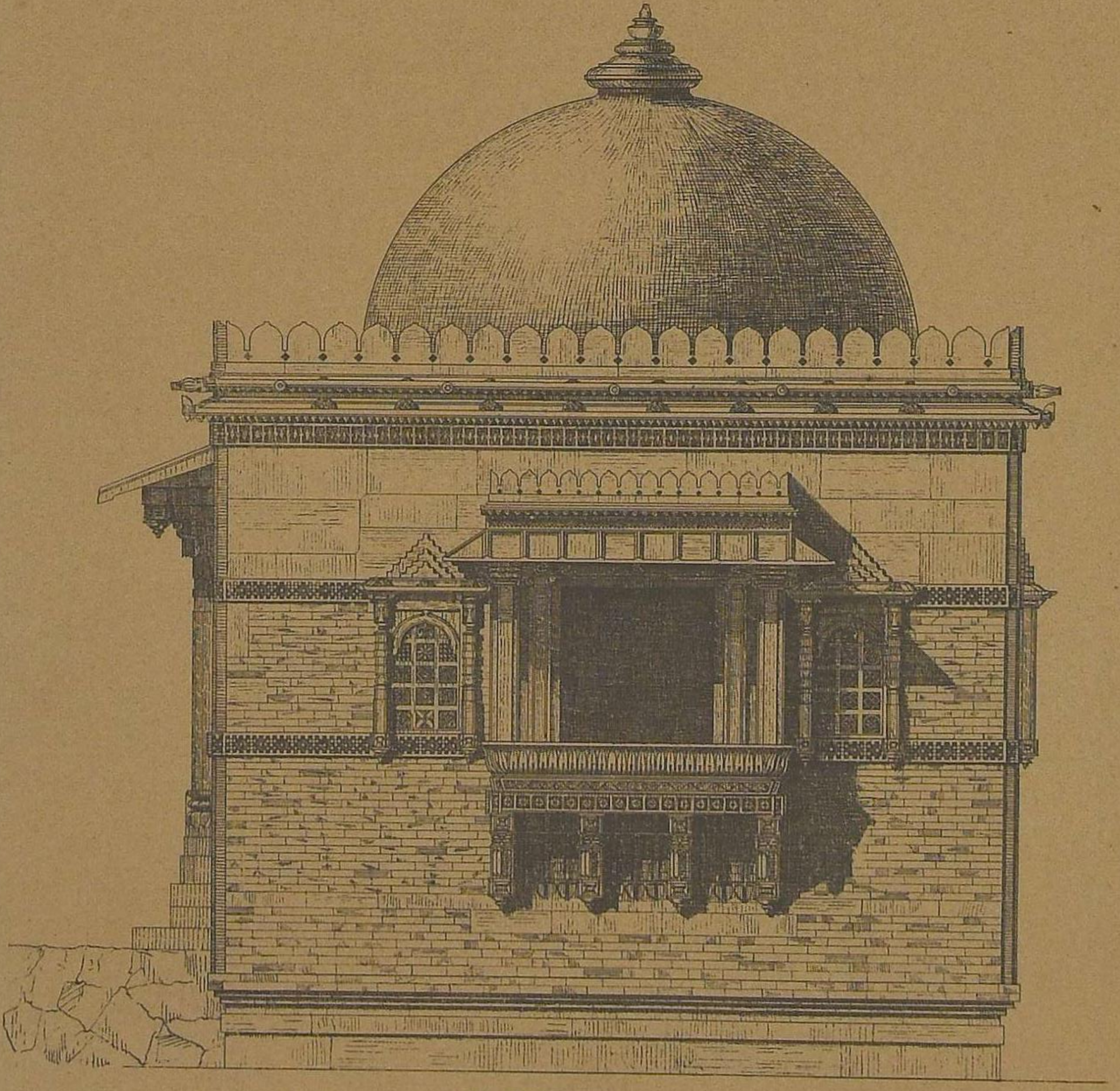
PLAN LOOKING UP

SCALE OF FEET.

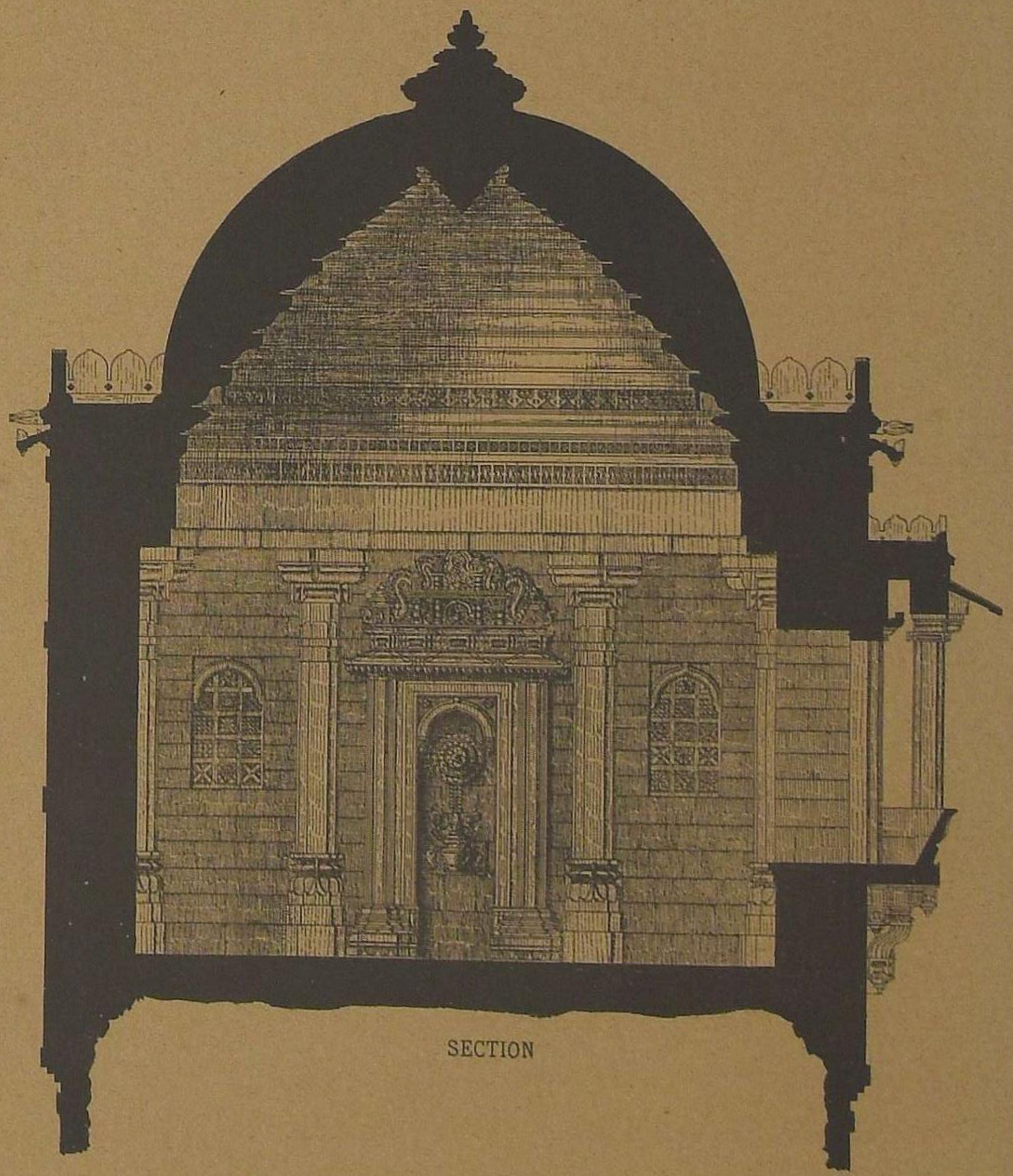
SIR J. J. SCHOOL OF ART,
BOMBAY, 1893.

MEASURED AND DRAWN BY
N. N. DESAI.

FROM THE DADA HARI'S MUSJID AT AHMEDABAD.



SIDE ELEVATION



SECTION

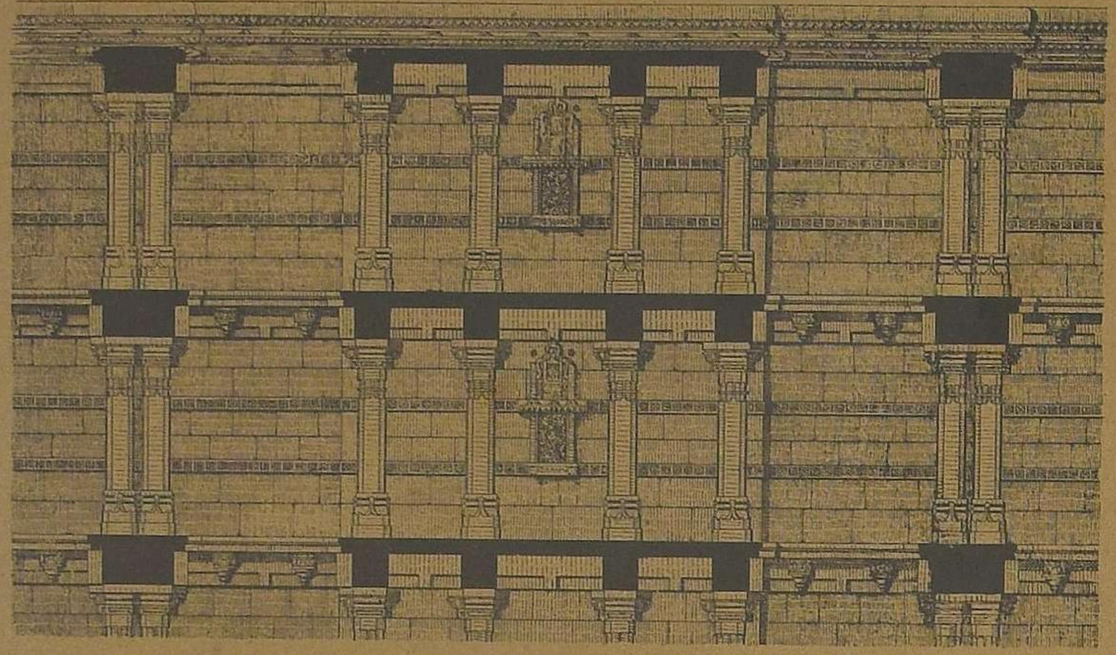
SCALE OF FEET

SIR J. J. SCHOOL OF ART,
BOMBAY, 1893.

75.

Side Elevation and Section, Dada Hari's Musjid, Ahmedabad.

MEASURED AND DRAWN BY
M. S. OKE.



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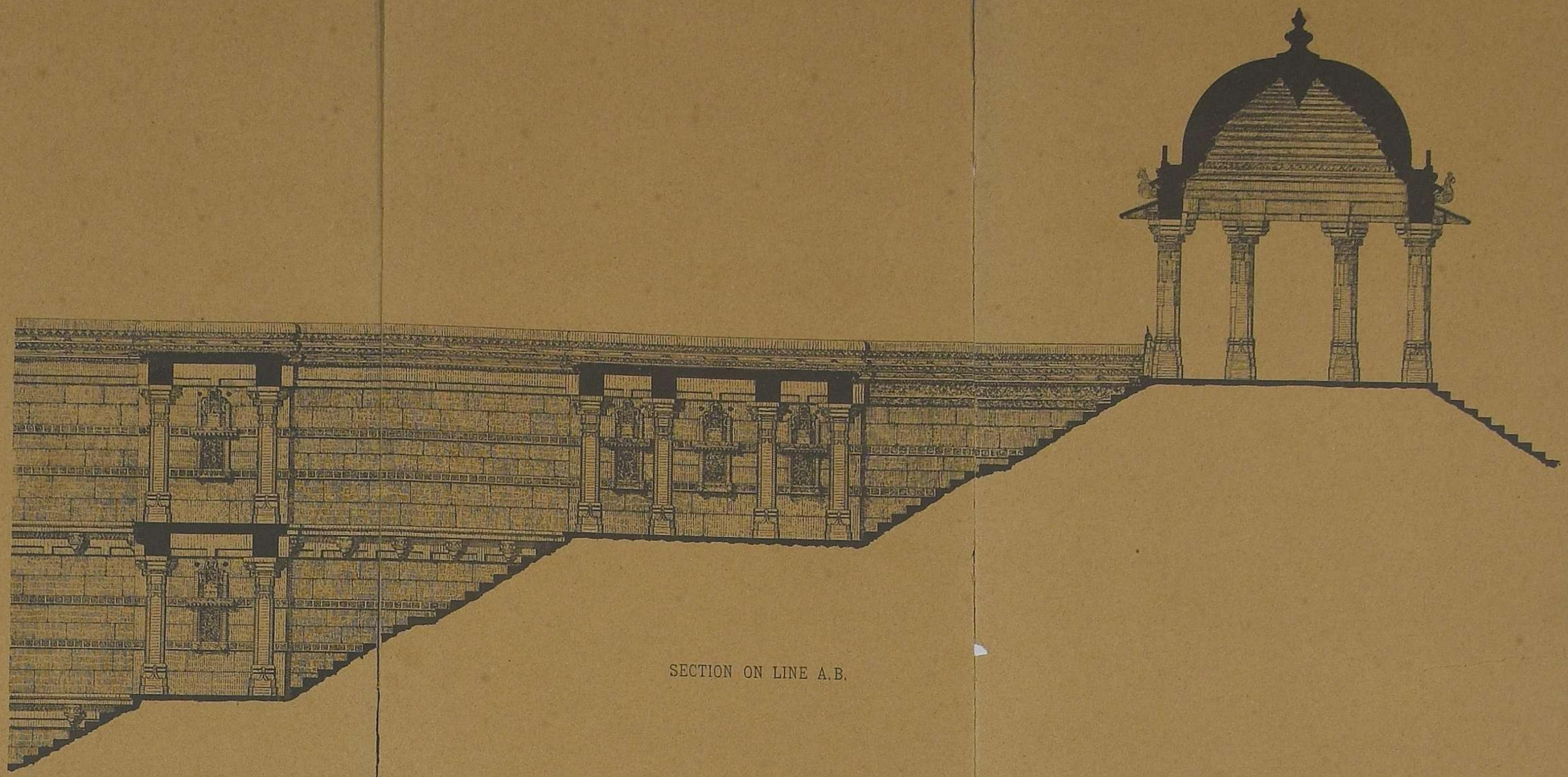
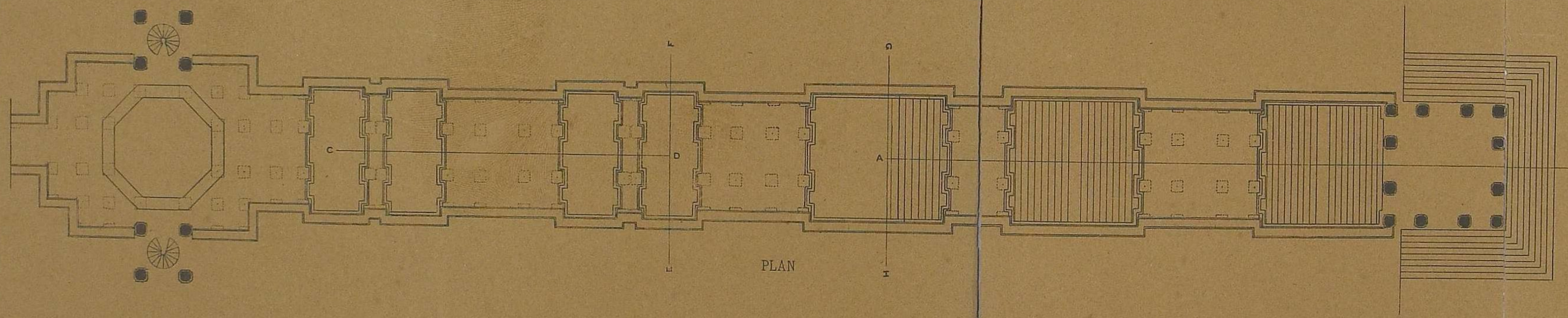


SECTION ON LINE A.B.

SCALE OF FEET

SCALE FOR SECTIONS



PLAN

SCALE OF

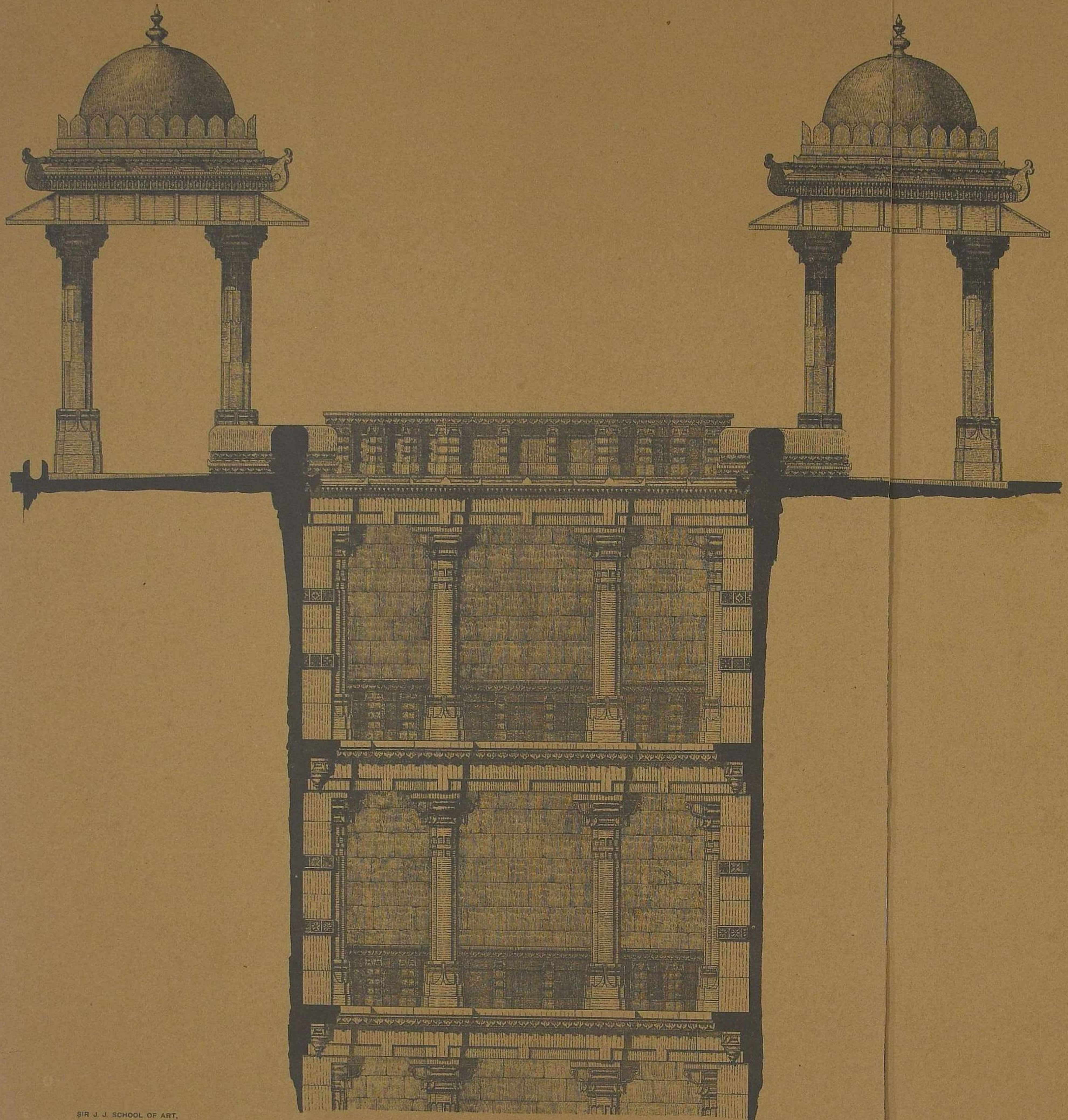
SCALE FOR PLAN

SIR J. J. SCHOOL OF ART,
BOMBAY, 1894.

MEASURED AND DRAWN BY
N. N. DESAI.

76.

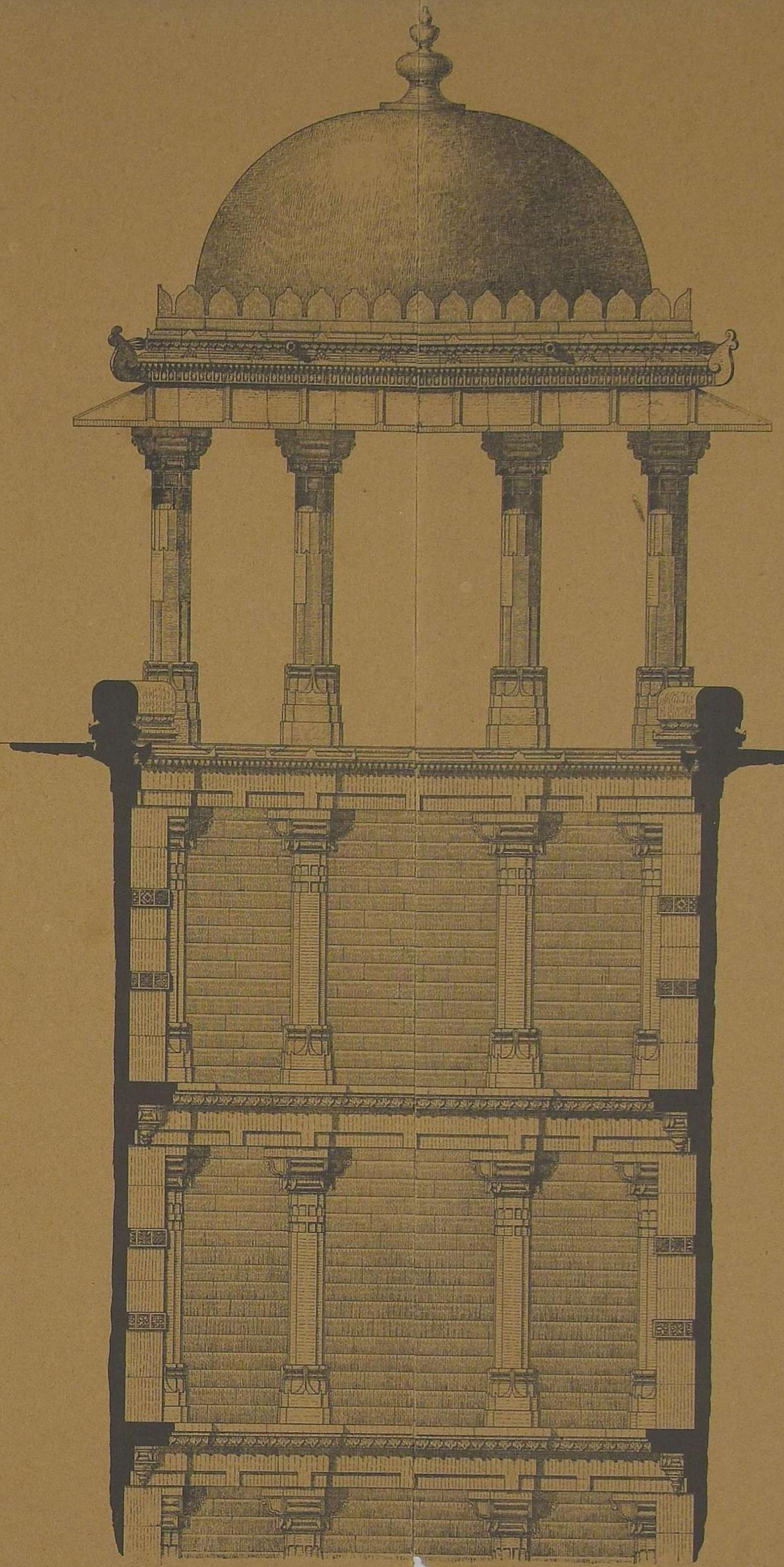
DADA HARI'S WELL, AHMEDABAD. Sections and Plan.



SIR J. J. SCHOOL OF ART,
BOMBAY, 1894.

SECTION ON LINE E.F

SCALE OF FEET.

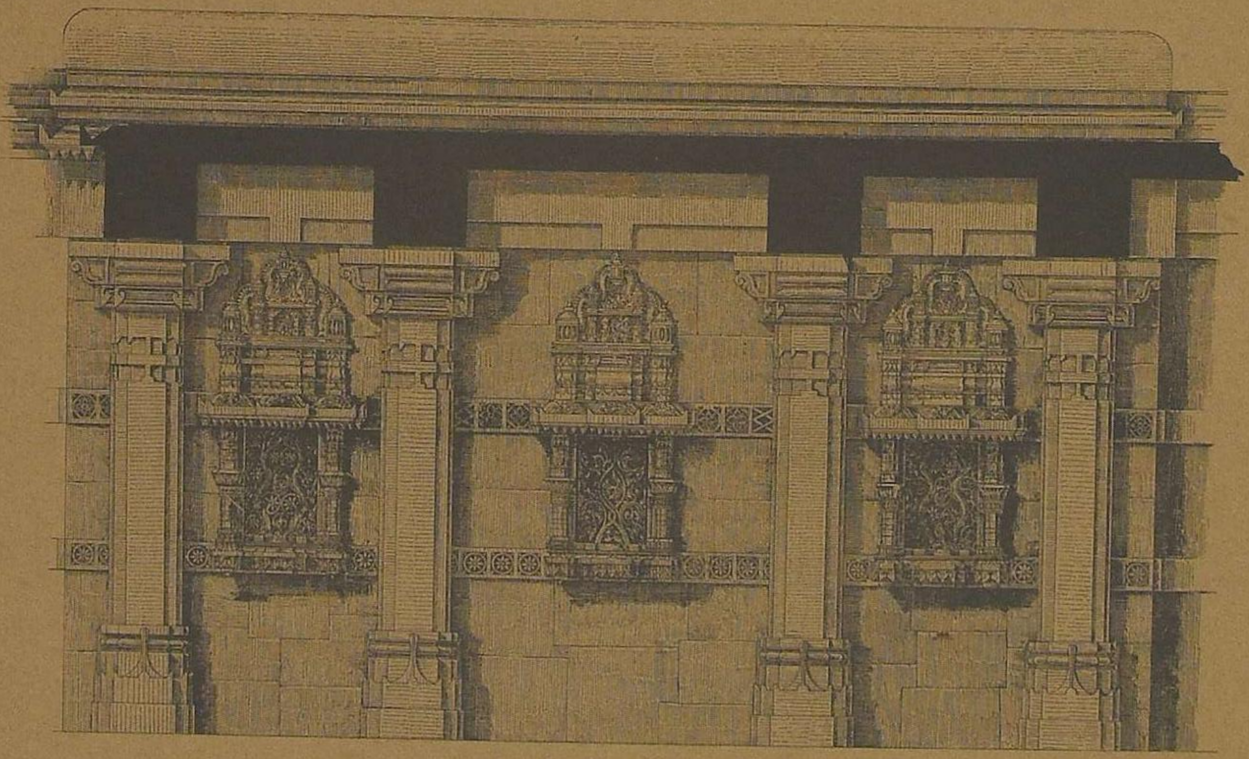


SECTION ON LINE G.H.

MEASURED AND DRAWN BY
RAMJEE JEEWN LOHAR.

77

DETAILS FROM DADA HARI'S WELL, AHMEDABAD.



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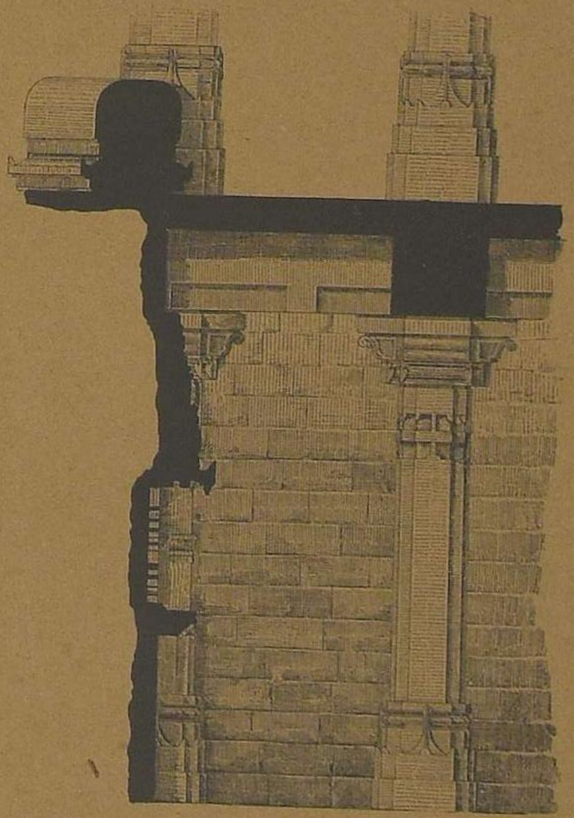

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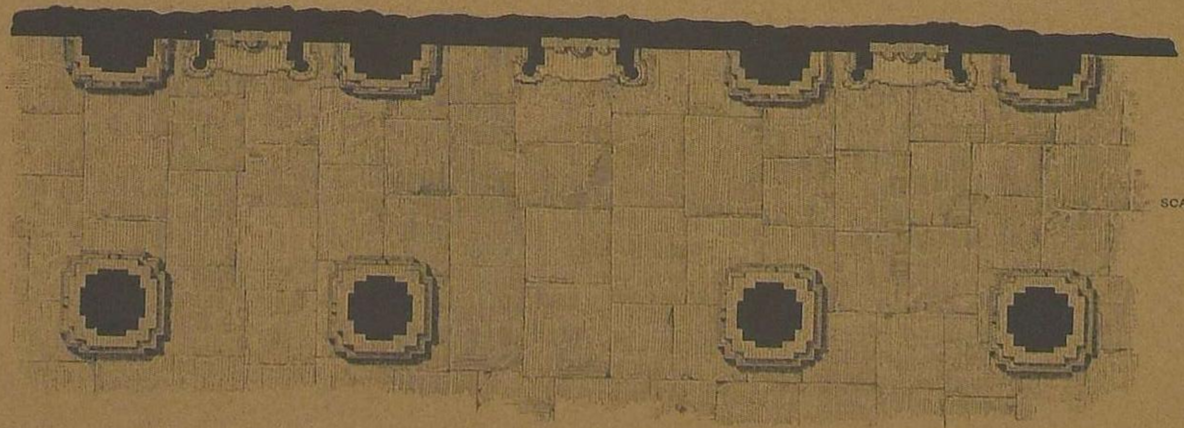


PLAN

SIR J. J. SCHOOL OF ART,
BOMBAY, 1894.

MEASURED AND DRAWN BY
S. J. FONSECA.

78.

DADA HARI'S WELL, AHMEDABAD. Details of Chowk (Resting Place).

SIR J. J. SCHOOL OF ART, BOMBAY, 1894.

MEASURED AND DRAWN BY J. COUTINHO.

DADA HARI'S WELL, AHMEDABAD. Details of Carved Panel in Chowk.

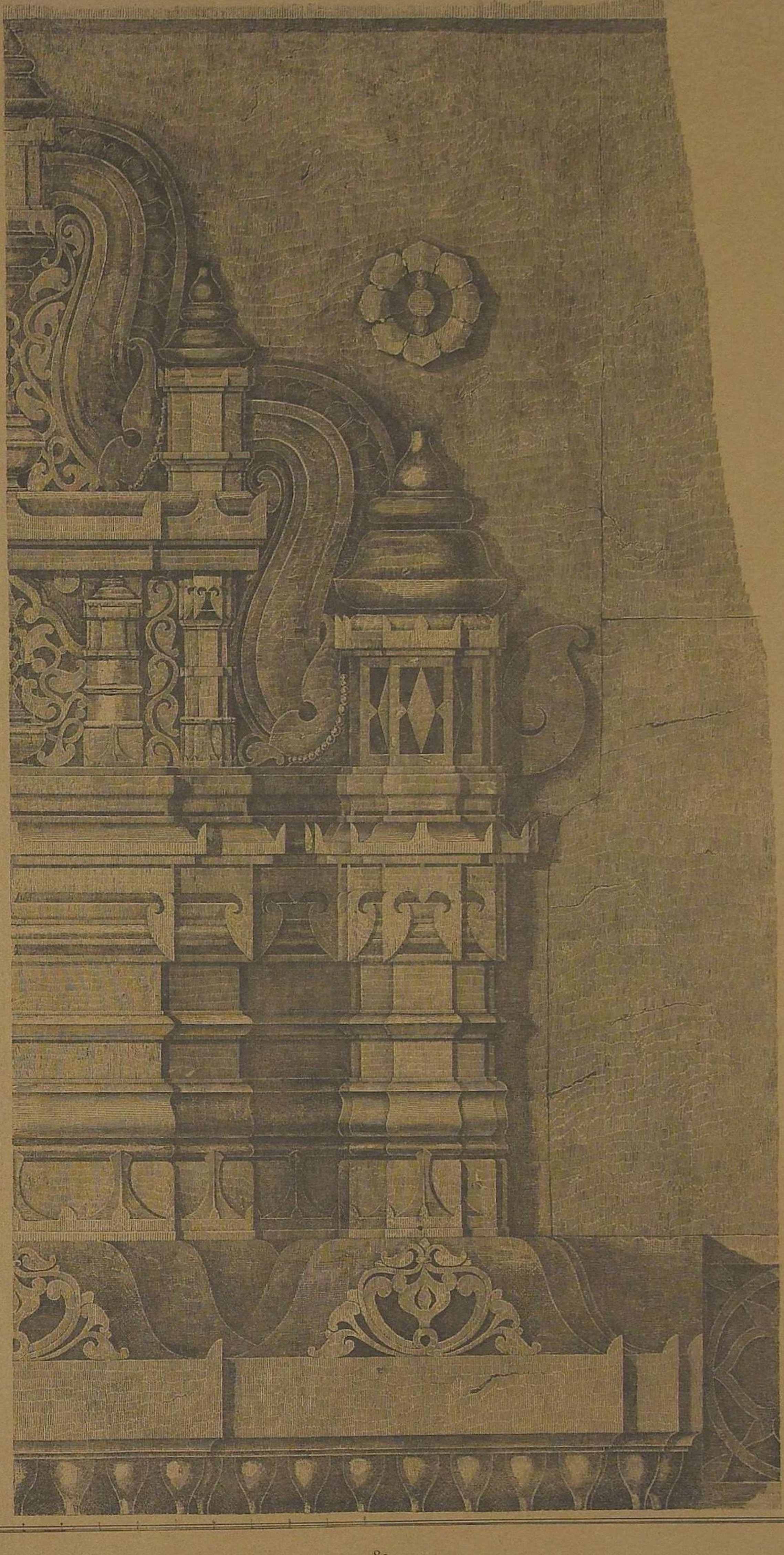
SCALE OF FOOT

SIR J. J. SCHOOL OF ART,
BOMBAY, 1894.

80.

DADA HARI'S WELL, AHMEDABAD. Details of Carved Panel in Chowk.

MEASURED BY M. S. OKE.
DRAWN BY A. C. VAZ.



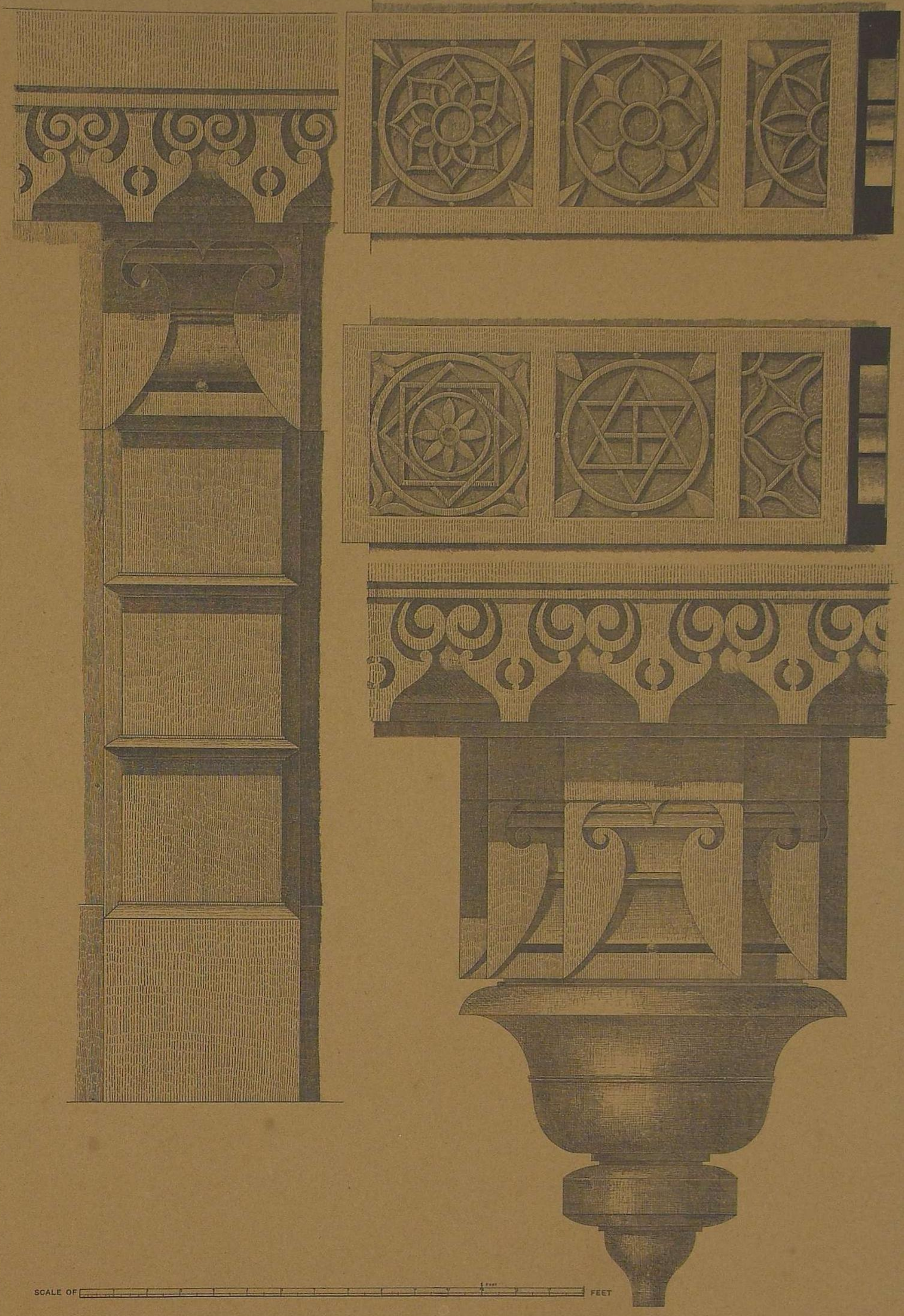
SCALE OF FOOT

81.

SIR J. J. SCHOOL OF ART,
BOMBAY, 1894

DADA HARI'S WELL, AHMEDABAD. Details over Carved Panels in Chowk.

MEASURED AND DRAWN BY
N. N. DESAI.

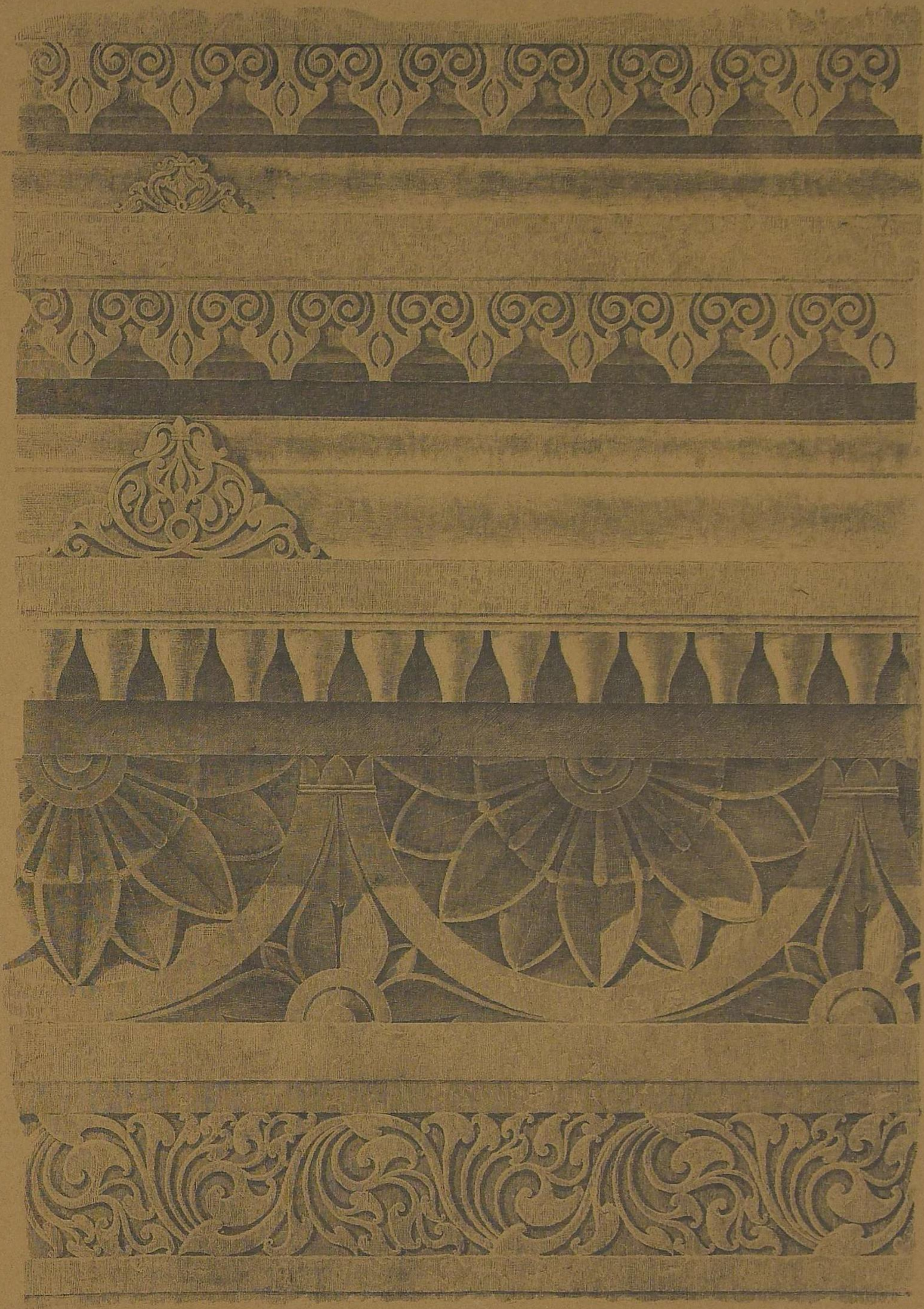


SIR J. J. SCHOOL OF ART,
BOMBAY, 1894.

82.

DETAILS FROM DADA HARI'S WELL, AHMEDABAD.

MEASURED AND DRAWN BY
RAMJI JIWAN LOHAR.



SCALE OF ... FOOT

SIR J. J. SCHOOL OF ART,
BOMBAY, 1894.

83.

DADA HARI'S WELL, AHMEDABAD. Details of Parapet.

MEASURED BY M. S. OKE.
DRAWN BY A. C. VAZ.

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TOMB OF AKBAR, SIKANDRA.

1—Border round panel, Vestibule.
2—Dado and panel on right of entrance passage.
3—Dado and panel, Vestibule.
4—Border round dado, Vestibule.
5—Detail, Vestibule.
6—Panel over door of passage, Vestibule.
7—Detail of border in alcove, Vestibule.
8—Cornice below springing of vault, Vestibule.
9—Detail of soffit of arch, Vestibule.
10—Border round spandril of arch, Vestibule.
11—Coffering in ceiling, Vestibule.

TOMB OF ITMAD-UD-DAULAH, AGRA.

12—Spandril over door, south oblong room.
13—Alcove in ceiling, west oblong room.
14—Band above alcove, east oblong room.
15—Ceiling, east oblong room.
16—Ornament on alcove in ceiling, east oblong room.
17—Detail of fresco painting.
18—Ceiling in alcove, south oblong room.
19—Detail of fresco painting.
20—Central chamber, ground floor.
21—Centre-piece in dome, ground floor.
22—Detail of ceiling in central chamber.
23—Band beneath alcove
24—Detail in central chamber.
25—Detail in central chamber.
26—Detail in central chamber.
27—Ceiling on north side of central chamber.
28—Painted decoration on ceiling.
29—Painted decoration on ceiling.
30—Painted decoration on ceiling.

GWALIOR.

31—Shop-front in the Lashkar or Camp.

DIWAN-I-AM IN THE FORT, DELHI.

32—Mosaic work at the back of the Marble Throne.

DIWAN-I-KHAS IN THE FORT, DELHI.

33—Details of painted ceiling.

RAJPUTANA.
PALACE AT UDAIPUR IN MEWAR.

34—Jalnavas in the palace.
35—Coloured mosaic.
36—Wooden door, inlaid with ivory, of the Bari Mahal.
37—Wooden door, inlaid with ivory, of the Bari Mahal.
38—Wooden door in the Chandra Mahal.

CHITTOR.

39—Tower of Victory, detail of lower portion.
40—Ahar-ki-Darwaza.

GREAT TOPE, SANCHI, BHOPAL STATE

41—Filling in of the breach.
42—View from the north.
43—Enlarged view of ditto.
44—View from the south, shewing the Vihara.
45—Southern gateway, front view.
46—Southern gateway, back view.
47—West gateway, back view.
48—Small gateway, back view.

MADURA, MADRAS.
GREAT TEMPLE TO SIVA AND HIS CONSORT.

49—Mutte Goparam, north face.
50—Colonnade in the Mutarli Mandapam.
51—Colonnade in the Via Vasanta Rayar Mandapam.
52—Jewels used in the Temple.

TRICHINOPOLY.
GREAT TEMPLE TO VISHNU ON THE SRIRANGAM ISLAND.

53—General Plan.
54—Plan and Section of the Thousand-pillar Mandapam.
55—Carved Pillars in the Seshgiri Rao Mandapam.
56—Column B in the Seshgiri Rao Mandapam.
57—Column A in Seshgiri Rao Mandapam.
Column L in the Thousand-pillar Mandapam.
58—Column C in the Ranga Vilasa Mandapam.
Column G on General Plan.
59—Column E in Ranga Vilasa Mandapam.
Column H on General Plan.
60—Mandapam marked D on General Plan.
61—Columns M and K in the Thousand-pillar Mandapam.
62—Column F and Door J on General Plan.

JAMBUISHWAR TEMPLE NEAR TRICHINOPOLY.

63—General Plan.
64—Plan and Section of the Thousand-pillar Mandapam.
65—Columns C and B, and Column G in the Thousand-pillar Mandapam.
66—Columns E and F in the Thousand-pillar Mandapam.
Column A in the Maisur Raja's Mandapam.
67—Column D in Anjal Mandapam, and Door H in gate of 3rd enclosure.

SHAHDARA, NEAR LAHORE.

68—General Plan of the Tomb of Jahangir.
69—Elevation and details.
70—Details of marble and stone on outer face.
71—Ditto ditto and details of door.
72—Details of fresco and mosaic.
73—Coloured tile mosaic on walls.
74—Ditto ditto
75—Details of paved walks.
76—Details of alcove and wall.

LAHORE FORT.

77—Plan.

SHAHLIMAR GARDENS, NEAR LAHORE.

78—General Plan.
79—Gateway E.
80—Gateway D.
81—Details of marble seat, borders, and fountains.

GOLDEN TEMPLE, AMRITSAR.

82—Plan and Elevation of the Darshani Darwaza.
83—Wood and ivory mosaic.
84—Ditto ditto
85—Ditto ditto
86—Ditto ditto

BADSHAHI SARAI AT NURMAHAL, NEAR JALANDHAR.

87—Side view of the west gate from the south.
88—Front view of the west gate.

BUDDHIST SCULPTURES OF GANDHARA.

89—Group from the Monastery at Rhod.
90—Groups from Sanghao and Nathu.
91—Ditto ditto
92—Ditto ditto
93—Group from Nathu.
94—Ditto ditto
95—Ditto ditto
96—Ditto ditto
97—Group from Miyan Khan.
98—Ditto ditto
99—Ditto ditto
100—Ditto ditto

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